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## **Impact of social capital on flexible work organisation models: comparative study of european countries**

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# **WOMEN'S PARTICIPATION IN HIGH PERFORMANCE WORK PRACTICES: A COMPARATIVE ANALYSIS OF PORTUGAL AND SPAIN**

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## **ABSTRACT**

High-performance work systems (HPWS) can be seen as a set of new forms of work organization combined with flexible human resources (HR) practices that enhance organizational performance through employee involvement and empowerment.

Although in the past two decades much research has been conducted on the effects that high-performance work practices can have on organizations, there is still much to know about the ideal conditions for the adoption of such practices. According to some research, there are organizational and employees' determinants that can influence the adoption of high-performance work practices.

On the other hand, gender, as an employee characteristic has not been much considered. However, according to the literature, female employees may be less likely to participate in HPWS (Heywood & Jirjahn, 2002). Women tend to have a greater need for flexible working conditions, such as part-time jobs or flexibility between work and home. This can lead to shorter tenure and less complex tasks, but also to more individualized job functions, which mean that workers with these kind of profile have less probability of making part of teams, a fundamental feature of HPWS.

The main goal of this paper is to understand how employees' characteristics can influence the adoption of high-performance work practices. Specifically, it will be given special attention to gender as a potential determinant of participation in HPWS.

To accomplish this goal, we frame the debate in recent research on HPWS that include employees' characteristics and then follow to an analysis of Portugal and Spain, using data from the European Working Conditions Survey (EWCS).

## **KEY WORDS**

Work organization, high-performance work practices, gender, Portugal, Spain

## 1. INTRODUCTION

High-performance work systems (HPWS) can be seen as a set of new forms of work organization combined with flexible human resources (HR) practices that enhance organizational performance through employee involvement and empowerment. Its central aim is to increase empowerment of employees, enhance their skills, arranging appropriate incentives, inventing ways to keep them motivated and eventually create a powerful, dedicated workforce that would keep on matching with organizational, market and social requirements (Appelbaum et al., 2000; Boxall & Macky, 2007, Gollan, 2005; Lawler, 2005).

Research on high-performance work practices (HPWP) started on the late 80's and early 90's and grew in the last decade. The main focus of this research is on the effects and consequences that HPWP have on several dimensions of organizations. It is believed that this set of management practices – with a special incidence on Human Resources Management (HRM) and work organization and design – produce effects on the way organizations align their resources in order to achieve their goals. Since the mid nineties, research main focus is on the outcomes generated by the use of high-performance practices, namely at the organizational level. Among these, some researchers put the emphasis on financial outcomes, others on non-financial outcomes, and others have mixed both.

More recently, the concern with employee effects of HPWS has increased, mostly as a mediating factor between high-performance practices and organizational performance. The underlying argument is that high performance HR practices don't act by themselves, directly on performance indicators, but through the effects they produce on employees. If high-performance practices are able to induce positive outcomes to employees, they will work harder (and better) which in turn will have positive return to the organization as a whole. Taking this idea as the basis, several studies try to understand what kind of outcomes high-performance HR practices could produce on employees. Effects such as job satisfaction, wages, work effort, job strain and job discretion are among the most observed outcomes.

On the other hand, there is still much to know about what conditions, if any, favour the adoption of HPWP. In fact, the focus on the discussion whether such practices improve or not organizational performance conducted to a lack of studies on the conditions under which they are used or successfully implemented. Among the few studies that try to shed some light on the determinants of HPWS, several personal characteristics of employees are pointed out as potential determinants. One of these personal characteristics is gender.

According to the literature female employees may be less likely to participate in HPWS (Heywood & Jirjahn, 2002). Women tend to have a greater need for flexible working conditions, such as part-time jobs or flexibility between work and home. This can lead to shorter tenure and less complex tasks, but also to more individualized job functions, which mean that workers with these kind of profile have less probability of making part of teams, a fundamental feature of HPWS.

Moreover, it is well documented that women (still) have less human capital than men. In the context of HPWS this can be a handicap. Early studies on the adoption of HPWS show that the characteristics of workers, namely their skills and abilities are important for a successful adoption. The formulation of Lawler (1986) and Appelbaum et al (2000), although present HPWS with slightly different dimensions, seem to agree on the important role played by employee's skills in a successful implementation of this HRM approach. Employees with higher human capital are more prepared to deal with complex tasks and to contribute in problem solving initiatives. Thus, it should be expected that women are less involved in high-performance practices.

However, recent research in this topic doesn't seem to back up these theoretical assumptions. In fact, Kauhanen's (2009) study on the potential determinants of HPWS found that gender is not a significant determinant on HPWS implementation. Thus, the main goal of this paper is to understand the role of gender as a potential explanatory variable of HPWS implementation, among the several employees' characteristics that can determine the probability of participate in high-performance work practices. The data for this study is taken from the 4th European Working Conditions Survey (2005), presenting a comparative analysis of Portugal and Spain.

The structure of paper is as follows. First we set the theoretical background, namely what constitutes HPWS, its main dimensions and practices, focusing on the role of employees' characteristics as an important requisite for successful adoption of HPWS; among these we try to highlight the discussion on gender as potential determinant of employees' participation in high-performance work practices. Following the methods, research goals and variables definition, we discuss the results and present some conclusions.

## **2. THEORETICAL BACKGROUND**

High-Performance Work Practices (HPWP) can be understood as a particular type of HR system made up of new forms of work organisation and flexible human resources practices based on employee involvement and empowerment. It has been gaining popularity over the last 10-15 years, and according to researchers are an outcome of an anti-Taylorist wave and the growing desire of western companies to match the competitions from upcoming countries like China and Japan, who already showed remarkable cost-control in their production processes (Boxall & Macky, 2007; 2009; Cappelli & Neumark, 2001).

Since the processes are varied in organisations, HPWS too gradually manifested in many ways, and accordingly earned various definitions, such as holistic work models (Lindbeck & Snower, 2000), high performance work systems (Appelbaum & Batt, 1994; Tomer, 2001) or high involvement management (Lawler, 1986)<sup>1</sup>. Nevertheless, its central aim remains the same, i.e., to increase empowerment of the employees, enhance their skills, arranging appropriate incentives, inventing ways to keep them motivated and eventually create a powerful, dedicated workforce that would keep on matching with organizational,

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<sup>1</sup> For the purposes of this study we will use the terms interchangeably.

market and social requirements (Appelbaum et al., 2000; Boxall & Macky, 2007, Gollan, 2005; Lawler, 2005).

HPWS Label	Underlying concept	Practices	Authors
High-Commitment Employment Practices	Practices that affect organisational commitment, which, in turn, assumed to influence organisational performance	Sophisticated selection and training, behaviour-based appraisal and advancement criteria, contingent pay systems, group bonuses and profit sharing	Walton (1985), Wood (1999), Ramsay, Scholarios & Harley (2000), Godard (2001a), Whitener (2001), Godard (2004), Boxall & Macky (2009)
High-Involvement Work Practices	Practices that emphasise an orientation towards enlarging employees' skills and knowledge	Teamworking/self-managed teams, information sharing, flexible jobs designs	Lawler (1986), Pil & MacDuffie (1996), Vanderberg et al. (1999), Zatzick & Iverson (2006), Boxall & Macky (2007), Macky & Boxall (2008)
Alternative Work Practices	Participatory practices that constitute alternative job designs, practices that allow employees some freedom to design their work	Work teams, job enrichment, job rotation, quality circles or problem-solving groups, cross training, and training in problem solving	Berg, Appelbaum, Bailey & Kallerberg (1996), Godard (2001b), Godard (2004), Boxall & Macky (2007)
Innovative Work Practices	Practices that enhance discretionary behaviour among employees and thus lead to innovative work behaviour in the workplace	Cross-training, flexible job designs, training in problem solving, decentralised decision making, self-managed teams	Ichniowski et al. (1996), Guthrie (2001), Guest, Michie, Conway & Sheehan (2003)

Table 1. HPWS Labels (source: adapted from Mkamwa, 2009)

One of the first and widely cited theoretical frameworks was proposed by Lawler (1986). He presents a theoretical framework for the implementation of high-involvement management based on four principles: information, power, knowledge and rewards. The strengthening of these dimensions should be made through several features; but whatever those features are they should contribute to move those principles downward to the low levels of the hierarchy. Lawler (1986: 194-215) points several of those features, such as job design, problem-solving groups, reward system, personnel policies, career system, selection system and training orientation. These practices should be accompanied by the structure of the organization, namely the organizational structure, information systems, and the physical and technical design.

Adopting such an employee-centric approach to work organization and human resources management several conditions are to be met. Research on what determines the implementation of high-performance work practices is scarce, and thus, research on the relevance of employees' characteristics is also reduced. In fact, employees' characteristics have been used in recent research mainly as a control variable, rather than a set of explanatory variables of high-performance practices adoption (see Figure 3). However, Kauhanen (2009) study the incidence of high-performance work practices in Finland and, although it argues that employees' characteristics are relevant for the adoption of high-performance work practices, the results are not conclusive. On the one hand, socioeconomic status, union membership and full-time status can have a positive impact; but, on the other hand, education, gender and work experience seems to have no significant effect.

HPWS Dimension	Definition	Associated Practices
Power	This element comprises the decision-making approach of the organization that can vary between fully participative and non-participative, and comprises three types of decisions: day-to-day decisions involving job holders; higher level strategy decisions made by top-level management; decisions that involve human resource management in most cases these decisions are shared by the top-level management and the human resources department	Problem solving; Teamworking/self-managed teams; Quality circles; Decentralized decision making
Information	Information that enables employees to participate and to decide and fosters cooperation and coordination. Thus, in order to promote participation it is crucial that information can be moved to lower levels	Information sharing; flexible jobs designs; feedback on goals; promotion rules; suggestion systems and meetings; performance appraisal
Knowledge	Knowledge and Skills is at the heart of every attempt to promote participation and involvement. A deficit in knowledge and skills can compromise any attempt to involve lower-levels of the organization, because the lack of knowledge and skills can impoverish participation and decisions. Organizations can enhance the skills and knowledge of their employees through training, either on how to do their own jobs (including technical skills) or on how to work and participate in a work team (including interpersonal and leadership skills)	Cross-training; training in problem solving; technical training; ongoing training; selection processes
Rewards	It is an important part of motivation, as they influence behaviours' direction and intensity. Rewards can work at the extrinsic and intrinsic levels, namely through gain sharing (extrinsic rewards) and by promoting accomplishment and self-worth (intrinsic rewards)	Contingent/skill based rewards; profit sharing; gain sharing

Figure 2. Lawler's (1986) HPWP dimensions and potential practices

However, when referred, the overall conclusion is that employees' characteristics have some impact on the results, either as a mediator or as a control variable. Education levels are assumed to be one of the most important employees' characteristics. In fact, Lawler (1986: 26-27) considers in his approach to high-involvement management that Knowledge and Skills are at the heart of every attempt to promote participation and involvement. A deficit in knowledge and skills can compromise any attempt to involve lower-levels of the organization, because the lack of knowledge and skills can impoverish participation and decisions. Several studies confirm this assumption when using educational levels or qualifications as control or mediator variables. For example, Handel & Gittelman (2004), when testing the association between high-performance work practices and wages, used education levels as a control variable and their findings support the notion that the relation between practices and wages are influenced by the worker level of education. In a similar study, Forth & Millward (2004) using a nationally-representative survey of British workplaces also drew similar conclusions.

Reference	Main goal	Employee characteristics	Used variables as..
Barnard & Rodgers (2000)	Examine policies relating to the internal cultivation of human resources and high-performance work systems among a sample of Singapore-based organizations	Educational level Occupational group Union membership	Control
Ramsay, Scholarios & Harley (2000)	Test the models based on high-performance work systems and labour process approaches	Sex Age Permanent job Hours per week Union member Management/ professional group Income	Control
Harley (2002)	Examine the impact of high-performance work systems on employees, using data from Australian Workplace Industrial Relations Survey	Gender Age Employment status Hours worked per week Union members Occupational group	Control
Barling, Kelloway & Iverson (2003)	Test the effect of high quality work (one element of HPWS) on occupational injuries	Age Gross pay Hours worked per week Occupational group Gender	Control
Forth & Millward (2004)	Test the association between high-performance practices and wages using a nationally-representative survey of British private-sector workplaces	Occupation Education level Job tenure Age Gender Wages	Control Dependent
Handel & Gittleman (2004)	Test the association between high-performance practices and wages	Gender Age Tenure Education level Ethnic Part-time Wages	Control Dependent
Macky & Boxall (2007)	Examination of the relationship between high-performance work system (HPWS) practices and employee attitudes, in order to improve the understanding of mediating variables inside the 'black box' of the firm's labour management	Age Gender Tenure Employment status	Control
Harley, Allen & Sargent (2007)	Assess the application of HPWS to the service sector	Age Gender Average weekly hours Qualification Tenure	Control
Kauhanen (2009)	Study the incidence of adaptive teams, incentive pay and employer-provided training, using a representative employee survey data for Finland	Socioeconomic status Education Gender Work experience Tenure Union membership Full-time status Fixed-term status	Independent

Figure 3: Studies using employee characteristics

This doesn't mean that companies' characteristics are not important; on the contrary. For example, Guthrie et al (2002) shows that companies with a differentiation strategy are more likely to adopt HPWS, and most of the literature argues that HPWS practices are more likely to be implemented in the manufacturing sector (Appelbaum et al., 2000).

### 3. METHOD

The main goal of this research is to understand the relation of employees' characteristics with the adoption of high-performance work practices in Portugal and Spain. Specifically, it will be given special attention to gender as a potential determinant of participation in HPWP. Thus it will be tested the effect that gender has on several high performance work organization practices. Moreover, it will be tested other worker characteristics, such as age, employment status and education level.

The data used in the analysis was taken from the 4th European Working Conditions Survey (2005) which is developed by the Foundation for the Improvement of Living and Working Conditions and its main goal is to study working conditions in Europe. The survey has been carried out four times: in 1990/91, 1995/96, 2000 (extended to cover the 10 new member states, Bulgaria, Romania and Turkey in 2001/02) and 2005 (31 countries). The population of the present analysis is confined to respondents that are employed. Self-employed respondents were not considered.

The selected variables for HPWP comprise one practice for each of Lawler's (1986) dimensions: power, information, knowledge and rewards. Although the bundle approach is advocated by several authors (Pil & MacDuffie, 1996; Becker & Huselid, 1998; Guerrero & Barraud-Didier, 2004; Kintana, Alonso & Olaverri, 2006; Macky & Boxall, 2007), the idea of a set of practices working together as a system is uncommon (Kauhanen, 2009). Thus, this study makes use of the most referred practices in the literature, covering the four dimensions mentioned above.

	Variable Name	Description	Code
High performance work organization practices (Dependent variables)	POWER	job involves doing all or part of the work in a team	1="yes"; 0="no"
	INFORMATION	discussion with boss about work performance	1="yes"; 0="no"
	KNOWLEDGE	training provided by employer	1="yes"; 0="no"
	REWARDS	payment based on overall performance of company	1="yes"; 0="no"
Workers' characteristics (Independent variables)	GEN_FEM	Respondent sex if female	1="female"; 0="male"
	AGE	Respondent age	
	EDUCATION_HE	Respondent education level Higher Education (ISCED classification)	1="higher education"; 0="others"
	TYPE_CONTRACT	type of contract	1="indefinite contract"; 0="all others"
	FULL_TIME	working full-time	1="full-time"; 0="part-time and others"

Table 4. Variables used in this study

The independent variables represent workers' characteristics and are also the most common in the literature (Ramsay et al, 2000; Guerrero & Barraud-Didier, 2004; Macky & Boxall, 2007; Harley et al, 2007; Beltrán-Martín et al., 2008). The classification of the variable "Education" is based on ISCED classification, and includes the ISCED 5 (tertiary education – first level) and ISCED 6 levels (tertiary education advanced level).



#### 4. ESTIMATION RESULTS

Tables 5 and 6 show the results of estimating probit models proposed, in which the dependent variable is defined by the four dimensions of high-performance work practices analyzed as a function of the explanatory variables that try to analyze the effect of workers' characteristics, such as gender, age, educational level, type of contract and full-time job.

The results for the sample of Spanish workers show a positive and significant effect of education on variables "power", "information" and "knowledge". The relevance of the educational level confirms what early theoretical formulations since Lawler (1986) and Appelbaum et al. (2000) stated about the importance of a skilled workforce in order to successfully adopt high-performance practices. More recently Ferreira, Neira & Vieira (2010) in a study of the importance of human capital for the adoption of high-performance practices in Portugal and Spain also arrived to the same conclusion.

Having a full-time job has a positive and significant effect on "information" and "rewards". The association between a full-time job and "rewards" is probably explained by the fact that rewards schemes are more common for workers fully committed with the organization. It should be noted the absence of relation of "age" and "type of contract" with high-performance dimensions. Finally, gender only shows a significant, but negative, effect on "power". In fact, as Heywood & Jirjahn (2002) concluded, female workers are less probable to participate in practices such as work teams that imply more interaction with other workers because of their need for more flexible work conditions.

	POWER	INFORMATION	KNOWLEDGE	REWARDS
GEN_FEM	-0.210950**	0.140221	0.118465	-0.085877
AGE	0.000827	0.000429	0.001229	-0.005014
EDUCATION_HE	0.214304**	0.274183***	0.617894***	-0.068505
TYPE_CONTRACT	0.074653	-0.054461	0.136211	0.532071
FULL_TIME	0.110245	0.295765***	0.172275	0.426092*
Observations	798	798	798	798
% correctly predicted	56.77	50.93	81.58	93.61

Table 5: Estimation results for Spain.

Note: \* 10%; \*\* 5%; \*\*\* 1%

The data for Portugal are significantly different from those obtained for the sample of Spanish workers. The results show that data of the Portuguese sample fit better than the observed results for the Spanish sample; thus, the selected workers' characteristics seem to have a highly impact on the adoption of high-performance work practices in Portugal.

As for the Spanish sample, education also plays an important role in determining the adoption of high-performance practices, having a positive impact in "information", "knowledge" and "rewards". However, contrary to the Spanish sample, education has a significant impact on "rewards" and no significant effect on "power". This means that, in Portugal, educational level is not determinant for team working practices, but can influence the profit sharing schemes adopted by companies.

Working in a full-time job has a positive and significant impact on “power” and “information”. This means that Portuguese workers in a full-time job are more likely to participate in teams and to discuss their performance with their boss. Age has a negative effect on “power” and “information”, and having an indefinite term contract has a positive and significant impact on “power”, “information” and “knowledge”. This is probably due to the fact that workers with indefinite term contracts are more experienced and with more relevant skills to companies, presenting higher probability for participation in more high-performance practices.

	POWER	INFORMATION	KNOWLEDGE	REWARDS
GEN_FEM	-0.146081**	-0.182010*	-0.226311**	-0.441049**
AGE	-0.012352***	-0.007245*	-0.006228	-0.001682
EDUCATION_HE	0.009124	0.225224*	0.774269*	0.704186***
TYPE_CONTRACT	0.172299**	0.232447**	0.241260*	0.191241
FULL_TIME	0.503820***	0.398821*	-0.055370	(a)
Observations	793	793	793	793
% correctly predicted	56.12	77.54	84.32	98.12

Table 6: Estimation results for Portugal.

Note: \* 10%; \*\* 5%; \*\*\* 1%

(a) Not included due to problems of multicollinearity

Gender seems to be an important explanatory variable for the Portuguese case, since it has a significant and negative impact in all high-performance dimensions. In fact, contrary to Kauhanen’s (2009) study, female workers in Portugal have fewer chances to participate in teams, discuss their performance with their boss, participate in training and be included in rewards schemes. These results somehow confirm the idea posed by Heywood & Jirjahn (2002) that women are in a more disadvantage position as far as the participation in high-performance practices is concerned.

## 5. DISCUSSION

Before the discussion of the results, it should be mentioned that we should be careful in trying to extract common results from the analysis of two different countries. In fact, although Spain and Portugal are neighbour countries with several similarities, they also present their own specific characteristics that can influence the way organizations are managed.

The main goal of this paper was to shed some light on the relevance of gender for the adoption of high-performance work practices, without forgetting other workers’ characteristics mentioned by the literature. The overall conclusion is that there is no agreement on the influence of gender. In fact, the results for the Portuguese and Spanish samples show this discrepancy. The impact of gender in the Spanish workers’ sample is almost none, with the exception of the participation in teams (power dimension). On the other hand, contrary to Kauhanen’s (2009) conclusions, the Portuguese sample shows that gender is a central aspect when observing the adoption of high-performance work practices. In fact, female workers are less likely to participate in every high-performance practices used in this study. Heywood & Jirjahn (2002) have already concluded that this is due to the need of greater flexible work conditions which, in turn, lead

women to jobs and tasks more individualized and less complex. Heywood, Jirjahn & Tsertsvadze (2005) in a study about profit sharing and teamwork also concluded that, due to women's disproportionate family responsibilities, they choose, and are directed, into jobs with greater flexibility between work and home. Typically, those jobs have lower degrees of interdependent worker productivity; thus, women will have fewer opportunities than men to be involved in profit sharing practices. In contrast, women are more attracted to sectors and jobs with variable pay based on individual performance (Jirjahn & Stephan, 2002).

Gender differences at work are well documented in gender studies (see Crompton, 1999 for an overview; see Atkinson & Hall, 2009 and Brewer, 2002 for flexible work; see Eveline & Todd, 2008 for gender pay gap) and it can be said that it is the result of historical social constraints; some of them are cross-national and others are country-specific. In the present study, the high relevance of gender as a factor explaining the participation in high-performance work practices in Portugal may be related to specific cultural, political and historical events, such as the constraints posed by the former political regime which contributed to the delay in the acquisition of education and massive entry into the labour market by women.

However, this explanation needs further reasoning, which leads us to the limitations of this study. In fact, the differences in the gender effect on the adoption of high-performance practices between the Portuguese and Spanish workers' sample is remarkable, and the present study doesn't present data that can support this difference. Thus, one possible future line of research is the understanding of the underlying factors that lead to this discrepancy.

Work organization practices used doesn't represent all the practices of HPWS. Although for analytical purposes this can be done, it should be noted that the mainstream literature on this topic states that HPWS can only effectively work as a bundle of practices and not in isolation. On the other hand, variables selected for the present study only represent workers' characteristics. Although this was explicit stated as the purpose of this study, it should be taken into account that other variables such as companies' characteristics can also impact the adoption of high-performance work practices. Thus, other variables should be tested in future research. Finally, the analysis of two countries doesn't allow generalizations, as the contradictory findings help to prove. There are many contingencies that are related to the reality of each country that makes generalizations complex.

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